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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
QUAN, ELIZABETH S	
ART UNIT	**PAPER NUMBER**
1743	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/728,263	Applicant(s) BERGH ET AL.	
	Examiner Elizabeth Quan	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *168-178* is/are pending in the application.

4a) Of the above claim(s) *178* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *168-177* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *168-178* are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/28/2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3,5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 168-177, drawn to a manifold for distributing fluids in microfluidic systems, classified in class 422, subclass 131.

II. Claim 178, drawn to a method for providing fluids to or removing fluids from a plurality of microcomponents, classified in class 436, subclass 180.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process, such as sequentially supplying a fluid to or discharging a fluid from each of the microcomponents through a distribution manifold.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Paul A. Stone on 3/17/2003 a provisional election was made with traverse to prosecute the invention of I, claims 168-178. Affirmation of this election must be made by applicant in replying to this Office action. Claim 179 is withdrawn

from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

6. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 168-177 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Referring to claim 168, n is an integer not less than 2 on the 6th line and n is an integer not less than 6 on the 15th line. Which one is it?

11. Claim 168 –170 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the connections or interrelationships among microcomponents, terminal ports, common port, distribution channel, channel sections, and binary junctions.

12. Referring to claim 170, what port is in communication with the reaction cavity?

13. Referring to claim 171, what is conductance? Fluid flow or fluid conductivity?

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 168-177 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 96/15576 to Zanzucchi et al.

Referring to claims 168-177, Zanzucchi et al. disclose a manifold for distributing fluids in microfluidic systems (see FIGS. 1 and 2). The manifold comprises a common port adaptable for fluid communication with one or more fluid sources or sinks (see FIGS. 1 and 2). In the case of n = 10, the number of microcomponents is $2^n = 1024$. While FIGS. 1 and 2 do not show 1024 microreactors, Zanzucchi et al. discloses that there may be 100 to 10000 microreactors in the system (see PAGE 4, lines 3-9; PAGE 11, lines 3-8). The microcomponents are arranged in a substantially planar array (see

FIGS. 1, 2, and 5). It appears that the microcomponents have a planar density of not less than about 1 microcomponents per square centimeter, as the alpha and beta electrodes and gamma electrode and the farthest of the alpha or beta electrodes located above the microcomponents are preferably 150 to about 250 microns apart and 200 microns to about 5000 microns apart, respectively (see PAGE 23, lines 31 and 32; PAGE 24, lines 1-15). Additionally, the system deals with capillary dimensions on the micron level thereby affording at least 1 microcomponent per square centimeter. The microcomponents are microreactors with a surface defining a reaction cavity (see FIGS. 1, 2, and 5). It appears the reaction cavity has a volume of not more than 3 ml for carrying out a chemical reaction since the system deals with capillary dimensions on the micron level (see PAGE 41, lines 30-32; PAGE 42, lines 1-4).

At least one port is in fluid communication with the reaction cavity (see FIGS. 1, 2, and 5). It appears that FIGS. 1 and 2 show 2^n or 1024 (n = 10) terminal ports. A distribution channel provides fluid communication between the common port and each of the 1024 terminal ports (see FIGS. 1 and 2). The channels have a hydraulic radius of no more than about 2.5 mm (see PAGE 7, definition of capillary dimensions; PAGE 44, lines 28-32). It appears that FIG. 2 shows 2^n-1 or 1023 (n = 10) channels sections. It appears that each of the channel sections have at least three access ports including a common port, a connection port for a binary junction, or terminal port (see FIG. 2). The channel sections appear to be linear (see FIG. 2). It appears that FIG. 2 shows 2^{n-1}-2 or 126 (n = 10) channels sections with access ports serving as connection ports for three binary junctions. It also appears that FIG. 2 shows 2^{n-1} or 128 (n = 10) channel sections

with access ports serving as a connection port for one binary junction and two terminal ports. According to the Applicant's specification, binary symmetry is preferably maintained to provide for equal conductance along each fluid distribution path. The channels in FIGS. 1, 2, and 5 appear to have binary symmetry, and therefore, the conductance of the distribution channel is substantially the same for each of the flow paths between the common portion and each of the terminal ports. It appears that the total flow path and change in pressure between the common port and each terminal port is the same. It appears the change in pressure between the common port and each terminal port being substantially linear is inherent to the system of Zanzucchi et al. According to the Applicant's specification a reduction in cross-sectional flow area at each binary junction causes a substantially linear pressure drop along the flow path from the common port to the terminal port. Zanzucchi et al. disclose the use of channels with different cross-sectional flow area (see PAGE 59, lines 22-32; PAGE 60, lines 1-24). The channel sections of the distribution channel are substantially coplanar, as parts of the channels would be coplanar (i.e. a plane cutting through all of the channels) (see FIGS. 1 and 2).

Therefore, Zanzucchi et al. includes all the limitations in claims 168-177.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Alternatively, claims 168, 169, 171-177 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/15576 to Zanzucchi et al. in view of U.S. Patent No. 4,537,217 to Allen, Jr. and/or U.S. Patent No. 4,999,102 to Cox et al. and/or U.S. Patent No. 5,354,460 to Kearney et al. and/or U.S. Patent No. 5,938,333 to Kearney and/or U.S. Patent No. 6,333019 to Coppens.

Referring to claims 168, 169, 171-177, Zanzucchi et al. do not show the channel configurations of the manifold as shown in FIGS. 7B and 14 and described by

mathematical constructs in the immediate application. However, it is very well known to have the claimed channel configurations.

Allen, Jr. shows the channel configurations of the manifold as shown in FIGS. 7B and 14 and described by mathematical constructs in the immediate application (see FIGS. 4-6). The channel configurations satisfy the mathematical constructs in claims 168 and 169 with n = 6. Allen, Jr. discloses that the distribution channel has a conductance that is substantially the same for each of the flow paths between the common port and each of the terminal ports (see ABSTRACT; COL. 2, lines 50-62; COL. 5, lines 9-19). It appears that the change in pressure between the common port and each terminal port is the same since the conductance is substantially the same for each of the flow paths between the common port and each of the terminal ports, the distances from end point E and fluid introduction point are the same, and substantially the same resistance to flow is provided along each of the paths A-E (see FIGS. 4-6; COL. 4, lines 56-66). According to the Applicant's specification a reduction in cross-sectional flow area at each binary junction causes a substantially linear pressure drop along the flow path from the common port to the terminal port. Therefore, the change in pressure between the common port and each terminal port is substantially linear since the flow is reduced by ½ at each binary junction (see FIGS. 4-6; COL. 5, lines 51-59). The channel configuration has the advantages of providing extremely low pressure drops across the manifold while providing uniform distribution of fluid, especially in large scale chromatographic columns (see COL. 2, lines 25-43). The manifold can easily be incorporated into mechanical systems for

keeping the manifold in intimate contact with the packing to reduce or eliminate the problem of a dead volume of fluid at the top of the column (see COL. 2, lines 25-43).

Cox et al. shows the channel configurations as described by mathematical constructs in the immediate application. The channel configurations satisfy the mathematical constructs in claims 168 and 169 with n = 6. Cox et al. disclose that the flow paths between the manifold inlet(s) and outlet(s) are all approximately hydraulically identical in numbers, types, and dimensions of flow components, such that the flow to and from each of the multiple inlets/outlets is equivalent as wells as the changes in pressure drop or flow rate and the time for liquid to traverse each of the manifold flow paths (see ABSTRACT; FIG. 3; COL. 2, lines 14-19, 43-48, and 51-62; COL. 3, lines 14-19; COL. 4, lines 27-42; COL. 5, lines 19-31 and 45-49; COL. 6, lines 23 and 24). It appears the change in pressure between the common port and each terminal port being substantially linear is inherent to the system of Cox et al. It appears the channel sections of the distribution channel are lying in a single plane (see FIG. 3). The channel configuration ensures approximately even distribution of liquid across the entire cell (see COL. 2, lines 51-53).

Kearney et al. show the channel configurations of the manifold as shown in FIGS. 7B and 14 and described by mathematical constructs in the immediate application (see FIGS. 3 and 4a). The channel configurations satisfy the mathematical constructs in claims 168 and 169 with n greater than or equal to 10 (see FIG. 3). The channels are within a single plane (see FIGS. 3 and 4a). Kearney et al. disclose that fluid is delivered to the step-down nozzles through the manifold system by means of approximately

hydraulically identical flow paths (see COL. 3, lines 17-21). The flow paths from the center well to the individual outlets (41) of each terminal plenum (40) in the system are hydraulically equivalent so that the flow rate of liquid into the proximal ends (44) of tubing runs (45) is approximately identical (see COL. 5, lines 6-11). The manifold can be arranged to pr9vide nearly identical hydraulic paths from an inlet well or outlet well (12) to each final orifice associated with that well (see COL. 6, lines 36-39). The configuration balances hydraulic balance and even flow distribution with sacrificing plug flow, which is applicable to cells of any size (see COL. 6, lines 47-51).

Kearney et al. show the channel configurations of the manifold as shown in FIGS. 7B and 14 and described by mathematical constructs in the immediate application (see FIGS. 1-5). The channel configurations satisfy the mathematical constructs in claims 168 and 169 with n greater than or equal to 10 (see FIG. 4). The hydraulic path characteristics from inlet (21) to any outlet (60) are approximately equivalent (see COL. 7, lines 49-52). Any path from inlet (21) to any specific outlet (60) can be generated from any other specific path from inlet (21) to a different outlet (60) by applying symmetry operations to the path (see COL. 7, lines 52-56). Control over fluid flow is easier when all of the flow paths exhibit substantially identical hydraulic conditions (see COL. 8, lines 4-7). Since there is a decrease in conduit diameter from the crossbar conduit (22) to the legs (28), there should be substantially linear change in pressure between the common port and each terminal port (see COL. 6, lines 58-60). The structural configuration of the manifold effectively mixes fluids in a very gentle manner (see COL. 2, lines 65-67). The manifold avoids passing the fluid through the entire

length of a bed, such that bed pressure drop is reduced to only the path length between corresponding distribution and collection points thereby reducing pressure drop-dependent energy requirements, avoiding expense and materials associated with high pressure column desire, and permitting use of sorption material of much smaller particle size than is normally required by a column flow operation (see COL. 5, lines 13-22).

Coppens shows the channel configurations of the manifold as shown in FIGS. 7B and 14 and described by mathematical constructs in the immediate application (see FIGS. 1-3). The channel configurations satisfy the mathematical constructs in claims 168 and 169 with n greater than or equal to 10 (see FIG. 2). The channels may be within a single plane (see ABSTRACT). Fluid may be distributed in uniform way, such that pressure drop from the inlet(s) to the multitude of outlet(s) is the same or controlled through the geometry of the structure (see COL. 8, lines 12-16). The pressure drop is substantially linear from the inlet to the outlet as a first channel splits into channels of lower diameter, each of which again splits into channels of lower diameter (see COL. 8, lines 16-20). The length of the channels may remain the same (see COL. 8, lines 16-20). The configuration allows for controlling three-dimensionally local parameters such as pressure and flow rates for improved operation of chemical and/or physical processes in vessels (see COL. 3, lines 4-8).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the manifold of Zanzucchi et al. to provide the claimed channel configuration as in Allen, Jr. and/or Cox et al. and/or Kearney et al. ('460) and/or Kearney ('333) and/or Coppens to balance hydraulic balance and even flow

distribution with sacrificing plug flow for improvide operation of chemical and/or physical processes in vessels.

20. Alternatively, claim 168 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/15576 to Zanzucchi et al. and/or U.S. Patent No. 4,537,217 to Allen, Jr. and/or U.S. Patent No. 4,999,102 to Cox et al. and/or U.S. Patent No. 5,354,460 to Kearney et al. and/or U.S. Patent No. 5,938,333 to Kearney and/or U.S. Patent No. 6,333019 to Coppens in view of U.S. Patent No. 6,426,226 to Senkan.

Referring to claim 168, Zanzucchi et al. and/or Allen, Jr. and/or Cox et al. and/or Kearney et al. ('460) and/or Kearney ('333) and/or Coppens do not explicitly disclose microcomponent density. However, Senkan discloses a variety of cell shapes and sizes with cell densities varying from about 10 to about 500 cells per square inch or 1.55 cells per square centimeter to about 77.50 cells per centimeter are available (see COL. 7, lines 8-11). Solid catalyst sites may have dimension of 0.5 cm by 0.5 cm, affording densities of 10 sites per square inch or 1.55 sites per square centimeter, permitting creation of over 900 sites on a substrate with dimensions of 8.5 inches by 11 inches (see COL. 7, line 67; COL. 8, lines 1-3). Higher densities may be achieved by smaller site dimensions or use of monolithic structures to expedite the generation and screening of libraries (see COL. 8, lines 4-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the manifold of Zanzucchi et al. and/or Allen, Jr. and/or Cox et al. and/or Kearney et al. ('460) and/or Kearney ('333) and/or Coppens to provide densities of not less than about 1 microcomponent per square centimeter as in Senkan to rapidly generate and screen libraries.

21. Alternatively, claim 170 rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/15576 to Zanzucchi et al. and/or U.S. Patent No. 4,537,217 to Allen, Jr. and/or U.S. Patent No. 4,999,102 to Cox et al. and/or U.S. Patent No. 5,354,460 to Kearney et al. and/or U.S. Patent No. 5,938,333 to Kearney and/or U.S. Patent No. 6,333019 to Coppens in view of U.S. Patent No. 5,580,523 to Bard.

Referring to claim 170, Zanzucchi et al. and/or Allen, Jr. and/or Cox et al. and/or Kearney et al. ('460) and/or Kearney ('333) and/or Coppens do not explicitly disclose the volume of the reaction cavity. However, Bard discloses that the microreactor has a reaction chamber volume from about 1 nanoliter to 10 microliters to efficiently perform assays requiring a total volume of reagents and samples between 1 nanoliter to 10 microliters (see CLAIM 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the manifold of Zanzucchi et al. and/or Allen, Jr. and/or Cox et al. and/or Kearney et al. ('460) and/or Kearney ('333) and/or Coppens to provide microreactors with reaction cavities having a volume of not more than 3 ml as in Bard to efficiently perform assays requiring a total volume of reagents and sample s of less than 3 ml.

22. Claims 168-177 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 09/518794 which has a common inventors and assignee with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e) if published or patented. This provisional rejection under 35 U.S.C. 103(a) is based upon a presumption of future publication or patenting of the conflicting application. Claims 20, 26-28, 61, and 92-96 of 09/518794 provide most of the

limitations in the claims. The claims do not recite that n is not less than 10. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify n to provide a greater number of microreactors as necessary or desired to simultaneously perform more assays.

This provisional rejection might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by a showing of a date of invention for the instant application prior to the effective U.S. filing date of the copending application under 37 CFR 1.131. For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Double Patenting

23. Claims 168-177 are directed to an invention not patentably distinct from claims 20, 26-28, 61, 92-96 of commonly assigned Application No. 09/518794. Specifically, claims 20, 26-28, 61, and 92-96 provide most of the limitations in the claims. The claims do not recite that n is not less than 10. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify n to provide a greater number of microreactors as necessary or desired to simultaneously perform more assays.

24. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

25. Claims 168-177 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20, 26-28, 61, 92-96 of copending Application No. 09/518794. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 20, 26-28, 61, and 92-96 provide most of the limitations in the claims. The claims do not recite that n is not less than 10. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify n to provide a greater number of microreactors as necessary or desired to simultaneously perform more assays.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They include one or more limitations in the claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743

eq
March 19, 2003

Jill Warden
Supervisory Patent Examiner
Technology Center 1700